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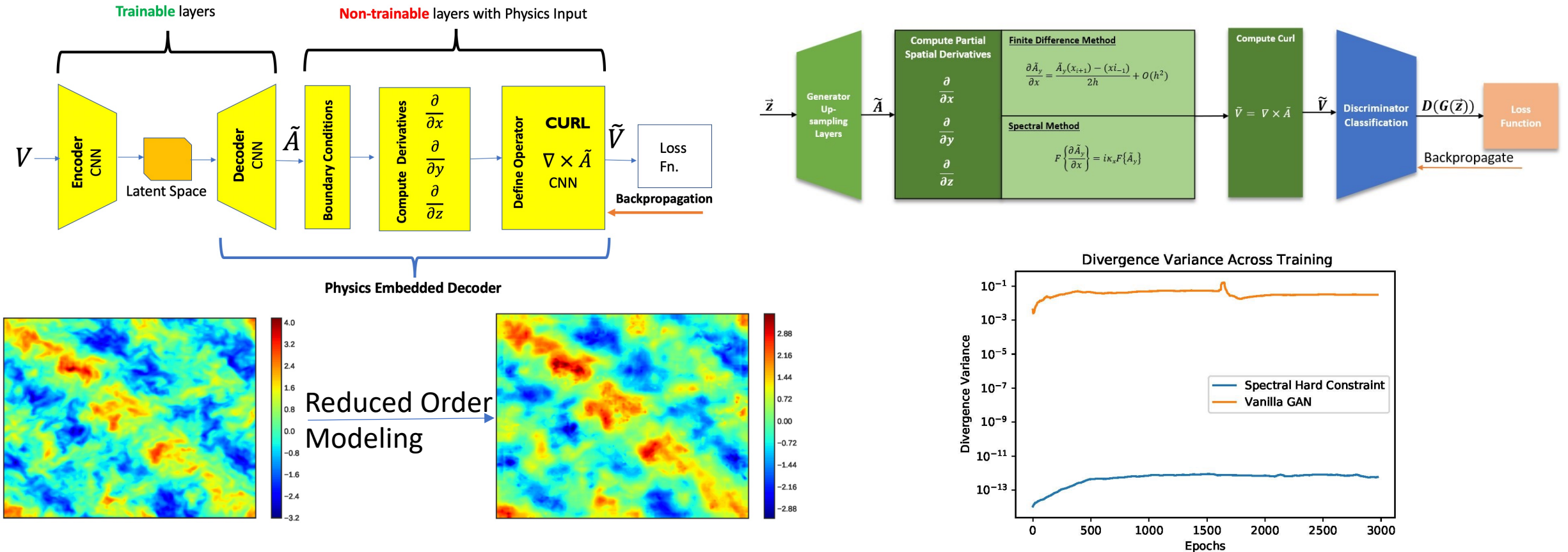
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Machine Learning for Turbulence

P.I. Arvind Mohan, CCS-2

New Deep Learning architectures that embed physics as **hard constraints** with numerical methods, increasing accuracy and reducing computational cost.



Convolutional Neural Network (Left) and Generative Adversarial Network (Right) enforcing $\nabla \cdot V = 0$ incompressibility constraint in modeling 3D homogeneous isotropic turbulence